



# Research in Germany

## - Land of Ideas



### PhD and Postdoc Research

### Hydraulic Engineering, Hydrology and Water Resources Management

Science and research in Germany are characterised by an excellent infrastructure, a wide variety of disciplines, well-equipped research facilities and competent research staff. Germany offers various forms of research locations: universities, non-university institutes, companies and institutions run by federal or state (Länder) authorities.

#### PhD research in Germany

There are two ways to complete a PhD in Germany:

Either you **contact a professor working in your field of interest** and agree to work on a certain research topic under his/her supervision ("traditional German model"). In this case, he/she will – after the research topic has been coordinated – send you an invitation letter, which together with the award letter of your funding institution has to be produced when applying for a visa. Advantage: You need not consider application deadlines of graduate schools and wait for their selection results. In theory, apart from the timelines of funding organisations, you may start your research any time which is feasible for you and your supervisor. Formal admission as a PhD candidate will mostly come after you have joined the university.

The other choice is to **apply to a graduate school / research school**. In this case, you have to apply formally for admission keeping in mind the one or two application deadlines per year. Advantage: At some graduate schools you are supervised and guided by more than one professor. Your research will mostly be accompanied by a course programme for PhD students and you will work in close contact with your fellow



PhD students – which, however, may also be the case when doing PhD research according to the “traditional” model. Some graduate school run their own funding schemes!

**German Research Institutes dealing with Hydraulic Engineering, Hydrology and Water Resources Management** (selection) offering research opportunities in various fields:

<b>Bonn University</b>	Center for Development Research	<a href="http://www.zef.de">www.zef.de</a>
<b>Kaiserslautern University</b>	Department of Civil Engineering	<a href="http://www.bauing.uni-kl.de/en/fww/forschungfww/nature-oriented-hydraulic-engineering-water-ecology/">www.bauing.uni-kl.de/en/fww/forschungfww/nature-oriented-hydraulic-engineering-water-ecology/</a>
<b>Karlsruhe Institute of Technology</b>	Institute for Water and River Basin Management	<a href="http://www.iwg.kit.edu/">www.iwg.kit.edu/</a> (in German only)
<b>Stuttgart University</b>	Institute for Modelling Hydraulic and Environmental Systems	<a href="http://www.iws.uni-stuttgart.de/">www.iws.uni-stuttgart.de/</a>
<b>Stuttgart University</b>	Institute for Sanitary Engineering, Water Quality and Solid Waste Management	<a href="http://www.iswa.uni-stuttgart.de/index.en.html">www.iswa.uni-stuttgart.de/index.en.html</a>
<b>Technical University Munich</b>	Department of Hydraulic Engineering and Water Resources Management	<a href="http://www.wb.bgu.tum.de/en/welcome/">www.wb.bgu.tum.de/en/welcome/</a>
<b>Technical University Darmstadt</b>	Section of Hydraulic Engineering	<a href="http://www.wasserbau.tu-darmstadt.de/forschung_wb/index.en.jsp">www.wasserbau.tu-darmstadt.de/forschung_wb/index.en.jsp</a>
<b>Kassel University</b>	Department of Hydraulic Engineering and Water Resources Management	<a href="http://www.uni-kassel.de/fb14bau/en/institute/iwau/wasserbau-und-wasserwirtschaft/homepage.htm">www.uni-kassel.de/fb14bau/en/institute/iwau/wasserbau-und-wasserwirtschaft/homepage.htm</a>
<b>RWTH Aachen</b>	Institute of Hydraulic Engineering and Water Resources Management	<a href="http://www.iww.rwth-aachen.de/">www.iww.rwth-aachen.de/</a>
<b>RWTH Aachen</b>	Institute of Environmental Engineering	<a href="http://www.isa.rwth-aachen.de/index.php?lang=en">www.isa.rwth-aachen.de/index.php?lang=en</a>
<b>Technische Hochschule Nürnberg</b>	Department for Civil Engineering	<a href="http://www.th-nuernberg.eu/home/departments/20/page.html">www.th-nuernberg.eu/home/departments/20/page.html</a>
<b>Technical University Dresden</b>	Institute for Hydraulic Engineering and Technical Hydromechanics	<a href="http://www.tu-dresden.de">www.tu-dresden.de</a>



<b>Technical University Berlin</b>	Research Network "Water in Urban Areas"	<a href="http://www.iz-wib.tu-berlin.de/menue/home/parameter/en/">www.iz-wib.tu-berlin.de/menue/home/parameter/en/</a>
<b>Brandenburg Technical University</b>	Faculty of Environmental Sciences and Process Engineering	<a href="http://www.tu-cottbus.de/fakultaet4/en.html">www.tu-cottbus.de/fakultaet4/en.html</a>
<b>Technical University Hamburg-Harburg</b>	Institute of Water Resources and Water Supply	<a href="http://www.tuhh.de/alt/www/welcome.html">www.tuhh.de/alt/www/welcome.html</a>
<b>Technical University Hamburg-Harburg</b>	Institute of Wastewater Management and Water Protection	<a href="http://www.tuhh.de/alt/aww/home.html">www.tuhh.de/alt/aww/home.html</a>
<b>Hanover University</b>	Institute of Water Resources, Hydrology and Agricultural Hydraulic Engineering	<a href="http://www.iww.uni-hannover.de/en-us/index.php">www.iww.uni-hannover.de/en-us/index.php</a>

#### PhD and postdoc research at non university research institutes (selection)

Helmholtz Center for Environmental Research	<a href="http://www.ufz.de">www.ufz.de</a>
Helmholtz Zentrum Muenchen / Institute for Groundwater Ecology	<a href="http://www.helmholtz-muenchen.de/en/igoe/index.html">www.helmholtz-muenchen.de/en/igoe/index.html</a>
Fraunhofer Group of Live Sciences / Health and Environment	<a href="http://www.fraunhofer.de/en/fields-of-research/health-environment/environmental-technologies.html">www.fraunhofer.de/en/fields-of-research/health-environment/environmental-technologies.html</a>
Fraunhofer Water System Alliance SysWater	<a href="http://www.syswasser.de/en.html">www.syswasser.de/en.html</a>
Leibniz Institute of Freshwater Ecology and Inland Fisheries	<a href="http://www.igb-berlin.de/igb_homepage.html">www.igb-berlin.de/igb_homepage.html</a>

#### Find more institutes and research organisations

[www.research-in-germany.de](http://www.research-in-germany.de)

[www.research-explorer.de](http://www.research-explorer.de)

#### Funding opportunities for PhD students

DAAD Research Grant (see: [www.funding-guide.de](http://www.funding-guide.de))

HEC scholarships

Scholarships offered by Pakistani universities

Scholarships offered by German research organisations



## **Funding opportunities for postdocs and experienced researchers**

Alexander von Humboldt Foundation (see: [www.avh.de](http://www.avh.de))

DAAD-Leibniz-Fellowships (see: [www.daad.de/leibniz](http://www.daad.de/leibniz))

Marie Skłodowska Curie Actions ( see <http://ec.europa.eu/research/mariecurieactions/> )

## **Some suggestions for a successful application to a professor or a graduate school in Germany (for PhD students)**

PhD candidates are expected to act as young research fellows and not as students. Thus, make sure you are well read in your field and you are well informed about the research background of the institute and the people you contact.

Keep in mind that professors are looking for a fellow who fits into their research team and who can contribute to ongoing or future projects. Thus speak about your research background and your research interests and how exactly they match the research foci of the institute/professor you are contacting.

Email correspondence should resemble formal letters and come with a formal address (“Dear Professor Hausmann”). Always address your correspondence partner by his/her name. Keep in mind that in Germany people never use first names when addressing an unknown person. In professional and academic life many people keep addressing each other by their surnames even after many years of cooperation. So use first names only if the senior person asks you to do so. (Fellow PhD students, however, will always address each other by their first names!)

Correspondence should always be focused on the research field and on one specific correspondence partner. It is strictly advised against using general phrases (“respected professor” / “your esteemed university”) in order send the same letter to a number of persons.

## **On research proposal writing**

A research proposal is an academic text and has to be in line with the formal requirements on academic writing. It is thus essential that the proposal is in line with the rules of academic integrity, which in the first line means: Plagiarism will never be pardoned. For more information see:

[www.ic.daad.de/islamabad](http://www.ic.daad.de/islamabad)

[www.plagiarism.org](http://www.plagiarism.org)

[www.admin.cam.ac.uk/univ/plagiarism/students/referencing/conventions.html](http://www.admin.cam.ac.uk/univ/plagiarism/students/referencing/conventions.html)

<https://integrity.mit.edu>

## **Further guidance**

If you have further questions after reading all the provided information, please do not hesitate to contact the DAAD Information Center in Islamabad.

Contact: [info@daad.org.pk](mailto:info@daad.org.pk)

## **Research in Germany**



**Land of Ideas**

**DAAD**

Deutscher Akademischer Austausch Dienst  
German Academic Exchange Service